



# UNIVERSITY OF SOUTHERN CALIFORNIA

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SCHOOL OF ENGINEERING  
DEPARTMENT OF CIVIL ENGINEERING

July 20, 1987

Mr. Owen Merrill  
Senior Staff Engineer  
ACRS  
USNRC  
Washington, D.C. 20555

Dear Mr. Merrill:

On July 16, 1987, I met with the members of the NRC staff, in Silver Spring, to hear their presentation on the Yucca Mountain site and to ask questions. They were very helpful. They supplied all the important references I requested and outlined for me what they know so far about the site. During our discussion it became clear that they lack much the same technical information which I was hoping to get from them and that it is the material which is presented to them that does not have sufficient detail for further evaluation and verification. In this respect it is clear that there should be more formal communication between the NRC staff and their technical counterpart.

The NRC staff presented to me their current understanding of the proposed tectonic models for the Yucca Mountain site: right lateral slip faulting not expressed on the surface, bending of the top plate, and the variations of the extension model. We also discussed the local seismicity and how the design levels for vibratory ground motion are developed.

Again, as I indicated in my previous letter to you, I find that the NRC staff questions do appear to cover the right topics, but it is also clear that we do not have the adequate and more specific coverage of the technical material to evaluate the calculations and conclusions in the reports on this site.

Yours sincerely,

*M. D. Trifunac*

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**ACRS CONSULTANT'S  
REPORT**